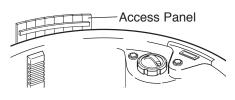


Model No. IMHS45590 Serial No. _____

The serial number is found on a plastic sign inside the spa behind the slotted access panel. Write the serial number in the space above for reference.



QUESTIONS?

As a manufacturer, we are committed to providing complete customer satisfaction. If you have questions, or if there are missing parts, we will guarantee complete satisfaction through direct assistance from our factory.

TO AVOID UNNECESSARY DELAYS, PLEASE CALL DIRECT TO OUR TOLL-FREE CUSTOMER HOT LINE. The trained technicians on our customer hot line will provide immediate assistance, free of charge to you.

CUSTOMER HOT LINE: 1-877-897-7493 Mon.–Fri., 6 a.m.–6 p.m. MST

CAUTION

Read all precautions and instructions in this manual before using this equipment. Save this manual for future reference.

USER'S MANUAL

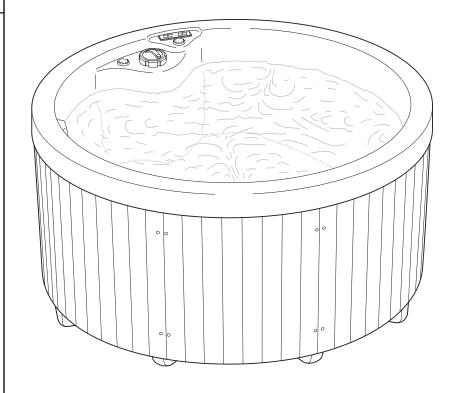




Table of Contents

Posting the Warning Sign	3
Before You Begin	
Choosing a Location for the Hydrotherapy Spa	7
Assembly	8
Using the Hydrotherapy Spa 1	0
Spa Shell Diagram	11
Using the Controls	2
Maintenance	3
Trouble-shooting	6
Part List	8
Exploded Drawing	
Ordering Replacement Parts Back Cove	ər
Limited Warranty Back Cove	ər

Posting the Warning Sign

The warning sign, shown below, must be posted on a wall or fence where it will be visible to all users of the hydrotherapy spa. Whenever the spa is moved, the sign must also be moved and reposted near the spa. If the sign becomes lost or illegible, call our toll-free Customer Hot Line at 1-877-897-7493 to obtain a replacement sign. Post the sign as described above.

DURING PREGNANCY, SOAKING IN HOT WATER MAY CAUSE DAMAGE TO THE FETUS. LIMIT USE TO 10 MINUTES AT A TIME.

PREVENT DROWNING	PREVENT CHILD DROWNING
 Spa heat speeds up the effect of alcohol, drugs, or medicine and can cause unconsciousness. Immediately leave spa if uncomfortable or sleepy. 	 Water attracts children. Always attach spa cover after each use.

AWARNING: To reduce the risk of drowning, electric shock, or serious injury, read the following important precautions before using the hydrotherapy spa.

READ AND FOLLOW ALL INSTRUCTIONS

- 1. It is the responsibility of the owner to ensure that all users of the hydrotherapy spa are adequately informed of all precautions.
- 2. Use the hydrotherapy spa only as described in this manual.
- 3. The hydrotherapy spa is intended for home use only. Do not use the spa in a commercial, rental, or institutional setting.
- 4. Use the hydrotherapy spa only on a level surface. Do not use the spa on carpet or other materials that could be damaged by moisture.
- 5. The hydrotherapy spa will weigh approximately 2,133 pounds when it is filled with water. Make sure that the location you select for the spa will support this weight, plus the weight of the occupants.
- 6. Inspect and tighten all parts regularly. Replace any worn parts immediately.
- 7. DANGER-Risk of injury: Do not remove or alter the covers on the suction fittings. Never operate the hydrotherapy spa if the suction guard is missing or broken. If you need to replace a suction fitting or pump, make sure you use only manufacturer recommended replacement parts. Keep hair and body parts away from the suction guard. Do not allow long hair to float freely in the water; long hair should be restrained with a bathing cap.
- 8. IMPORTANT: Do not allow the hydrotherapy spa to be exposed to direct sunlight when it is empty. The surface of the spa shell can reach temperatures as high as 150°F in a matter of minutes if exposed to the sun while it is empty. These high temperatures can cause significant damage, such as blistering of the shell surface and warping of the spa shell. Any damage caused by sun exposure is not covered under the warranty.
- 9. Do not bring any object into the hydrotherapy spa that could damage the spa shell.

- 10. Never insert any object into any opening.
- 11. Do not use breakable containers in or near the hydrotherapy spa.
- 12. Do not sit on the spa cover or place objects on it; it is not designed to support weight.
- 13. Remove any water or debris that may collect on the spa cover.
- 14. Keep children under the age of 12 and pets away from the hydrotherapy spa when it is not in use.
- 15. Keep all chemicals away from children and pets.
- 16. The pH and chemical balance of the water must be maintained as explained in this manual (see pages 10 and 14). Failure to do so may cause injury to users or damage to the hydrotherapy spa, and will void the warranty.
- 17. Individuals with infections and open sores or wounds should not use the hydrotherapy spa. Bacteria thrive in warm and hot water. Always keep your spa disinfected and maintain the proper chemical balance.
- 18. Shower before and after using the hydrotherapy spa. This will remove any deodorant, perspiration, or body oils that could contaminate the water. Showering after will remove any residual chemicals and any bacteria that may have been in the spa.
- 19. DANGER-When connecting the power cord (see PLUGGING IN THE HYDROTHERAPY SPA on page 10), plug the power cord directly into a grounded circuit capable of carrying 15 or more amps. No other appliance should be on the same circuit. Replace the power cord immediately if damaged.
- 20. Do not use an extension cord with the hydrotherapy spa. This could damage the motor and will void the warranty.

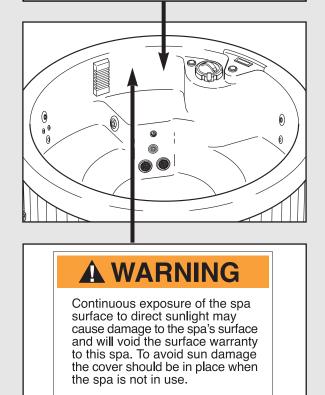
- 21. DANGER—If you will be using the hydrotherapy spa outside, do not bury the power cord. Keep the power cord away from lawn mowers, hedge trimmers, and other similar equipment.
- 22. WARNING—The power cord is equipped with a Ground Fault Circuit Interrupter (GFCI), located on the power cord. The GFCI must be tested before each use. To test the GFCI, press the "test" button while the hydrotherapy spa is running. The should shut off. Press the "reset" button. The spa should resume normal operation. If the spa continues to run after the "test" button is pressed, the GFCI is damaged. Do not use the spa until the GFCI has been repaired or replaced by a qualified electrician.
- 23. DANGER—Risk of electric shock. Keep all electrical appliances such as radios, telephones, televisions, and lights at least five feet away from the water.
- 24. A wire connector is provided on the pump motor of the hydrotherapy spa to connect a minimum No. 8 AWG (804 mm²) solid copper conductor between the spa and any metal equipment, electrical enclosure made of metal, metal water pipes, or conduit within five feet of the spa.
- 25. DANGER—Risk of electric shock: Do not set the hydrotherapy spa within five feet of any metal objects or surfaces. As an alternative, you may use the spa within five feet of metal objects if each metal object is permanently connected to the wire connector on the pump motor of the spa by a minimum No. 8 AWG (804 mm²) solid copper conductor (see instruction 24).
- 26. Do not operate the pump motor when the hydrotherapy spa is empty. The pump motor may be seriously damaged if it is operated without water circulating.
- 27. DANGER—Risk of drowning: Exercise extreme caution to prevent unauthorized and unsupervised use of the hydrotherapy spa by children. Children must always be supervised.
- 28. DANGER—To reduce the risk of drowning:
 - Never use the hydrotherapy spa alone.
 - Children should not use the spa unless they are supervised by an adult.
 - Keep pets away from the spa at all times.
 - Always replace and lock the spa cover when the spa is not in use.

- 29. WARNING—To reduce the risk of injury: The water temperature should never exceed 104°F. Temperatures between 100°F and 104°F are considered to be safe for healthy adults. However, if you plan to remain in the hydro-therapy spa for more than 10 to 15 minutes, a lower temperature is recommended. Lower temperatures are also recommended for children. Children should not be allowed to swim under the surface of the water in the spa.
- 30. WARNING—To reduce the risk of injury: Before entering the hydrotherapy spa, always use an accurate thermometer to determine the water temperature.
- 31. WARNING—To reduce the risk of injury: Pregnant women should consult with their physician before using the hydrotherapy spa. Pregnant women should not use the spa if the water temperature is above 100°F; the unborn child could be seriously harmed. This is especially important during the first 90 days of the pregnancy.
- 32. DANGER—To reduce the risk of drowning: Prolonged immersion in the hydrotherapy spa may cause hyperthermia, a dangerous condition that occurs when the internal body temperature rises several degrees above the normal body temperature of 98.6°F. The symptoms of hyperthermia are nausea, dizziness, drowsiness, and fainting. Effects include: a lack of awareness, inability to perceive heat or danger, and a greater risk of drowning due to a loss of consciousness. Special note: Individuals suffering from hyperthermia may be unable to realize that they must exit the spa, and they also may be physically unable to do so.
- 33. WARNING—To reduce the risk of drowning: Do not use the hydrotherapy spa if you are under the influence of alcohol or drugs. Heat from the water, in conjunction with alcohol or drugs, can cause loss of consciousness.
- 34. WARNING—To reduce the risk of injury or drowning: Consult your physician about possible side-effects of any medications you may be taking before using the hydrotherapy spa. Heat from the water, in conjunction with some medications, may cause drowsiness and increase the risk of drowning. Other medications can effect blood pressure, heart rate, and circulation.
- 35. Do not use the hydrotherapy spa immediately after strenuous exercise.

- 36. If you feel pain or dizziness at any time while using the hydrotherapy spa, discontinue use and contact a physician.
- 37. WARNING—To reduce the risk of injury: It is especially important for persons over the age of 35 or persons with pre-existing health problems, such as obesity, heart disease, high or low blood pressure, circulatory problems, or diabetes to consult their physician before using the hydrotherapy spa.
- 38. WARNING: The spa jets produce a stream of water with relatively high pressure. Prolonged exposure of a localized area of the body may cause bruises to the skin.
- 39. The included warning sign must be posted where all users of the hydrotherapy spa can see and read it. (See POSTING THE WARNING SIGN on page 2.)
- 40. The causes, symptoms and effects of hyperthermia may be described as follows: Hyperthermia occurs when the internal temperature of the body reaches a level of several degrees above the normal body temperature of 98.6°F. The symptoms of hyperthermia include an increase in the internal temperature of the body, dizziness, lethargy, drowsiness and fainting. The effects of hyperthermia include failure to perceive heat; failure to recognize the need to exit the spa or hot tub; unawareness of impending hazard; fetal damage in pregnant women; physical inability to exit the spa or hot tub and unconsciousness resulting in danger of drowning. WARNING: The use of alcohol, drugs or medication can greatly increase the risk of fatal hyperthermia.

41. WARNING DECAL PLACEMENT: Locate the decals shown below and familiarize yourself with the information on the decals.





WARNING: Read all instructions before using the hydrotherapy spa. ICON assumes no responsibility for personal injury or property damage sustained by or through the use of this product.

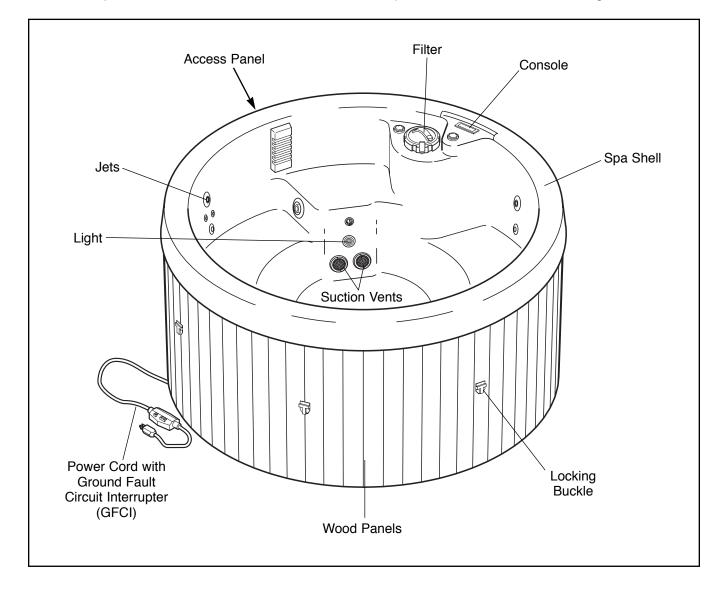
SAVE THESE INSTRUCTIONS

Before You Begin

Congratulations for selecting the new IMAGE[®] RENEW 455 hydrotherapy spa. The innovative RENEW 455 allows you to enjoy all the benefits of hydrotherapy in the comfort and privacy of your home.

Hydrotherapy is a proven method for soothing tired muscles after exercise or for relieving the stress of a busy life. The warm environment stimulates blood flow, which is essential in the healing process, and the powerful massage action further eases tension and stress throughout the body. The RENEW 455 hydrotherapy spa gives you the specialized treatment you need to feel your best. For your benefit, read this manual carefully before using the RENEW 455. If you have additional questions, please call our Customer Service Department toll-free at 1-877-897-7493, Monday through Friday, 6 a.m. until 6 p.m. Mountain Time (excluding holidays). To help us assist you, please mention the product model number and serial number when calling. The model number is IMHS45590. The serial number can be found on a decal attached to the frame inside the spa (see the front cover of this manual).

Before reading further, please familiarize yourself with the parts that are labeled in the drawing below.



Choosing a Location for the Hydrotherapy Spa

There are many factors to consider when choosing a location to set up the hydrotherapy spa. These factors vary depending on whether you plan to use the spa inside or outside. We have listed several factors you may wish to consider as you decide where to set up the spa.

If you set up the hydrotherapy spa inside:

- 1. The hydrotherapy spa will increase the level of humidity in your home. The location you choose should be well ventilated. You may need to install a ventilation fan or use a dehumidifier.
- The location must be close to an electrical outlet.
 Do not use an extension cord with the hydrotherapy spa.
- 3. The hydrotherapy spa should be close to a source of water.
- 4. Do not use the hydrotherapy spa on carpet or other material that may be damaged by moisture. We recommend that you place the hydrotherapy spa on a water- and stain-resistant, non-slip surface with a floor drain for any water that may splash from the hydrotherapy spa.
- 5. Be sure that the location you choose is stable. It must be able to support the weight of the hydrotherapy spa when it is filled with water, plus the weight of the occupants. The hydrotherapy spa weighs approximately 2,133 pounds when it is filled with water.
- 6. Do not use the hydrotherapy spa above a finished living area, due to the risk of water damage.
- Be sure that there is room around the hydrotherapy spa to permit servicing of the unit. The dimensions of the spa are 70" W x 70" L x 35" H. You should allow for this size when choosing the location.
- 8. The hydrotherapy spa is not designed for in-floor installation. However, it is compatible with a deck system that is built flush with the top of the spa, provided you leave access to the motor for service.
- Be sure to note any other considerations, such as aesthetics or privacy concerns, that may affect the safety or enjoyment of using the hydrotherapy spa.

If you set up the hydrotherapy spa outside:

- 1. Check local building codes concerning the use of outdoor spas.
- The location must be close to an electrical outlet. Do not use an extension cord with the hydrotherapy spa.
- 3. The hydrotherapy spa should be close to a source of water.
- 4. We recommend that you place the hydrotherapy spa on a water- and stain-resistant, non-slip surface. Do not use the hydrotherapy spa on rough or sharp surfaces such as gravel or wood chips.
- 5. Be sure that the location you choose is stable. It must be able to support the weight of the hydrotherapy spa when it is filled with water, plus the weight of the occupants. The hydrotherapy spa weighs approximately 2,133 pounds when it is filled with water.
- 6. Think about environmental factors, such as rain, wind, shade, sunlight etc.
- You should be able to monitor the use of the hydrotherapy spa from your home, to prevent unauthorized use by children. You may want to enclose the spa with a fence and self-latching gate to prevent unauthorized use.
- 8. Be sure that there is room around the hydrotherapy spa to permit servicing of the unit. The dimensions of the spa are 70" W x 70" L x 35" H. You should allow for this size when choosing the location.
- 9. The hydrotherapy spa is not designed to be installed below ground level. However, it is compatible with a deck system that is built flush with the top of the spa, provided you leave access to the motor for service.
- 10.Be sure to note any other considerations, such as aesthetics or privacy concerns, that may affect the safety or enjoyment of using the hydrotherapy spa.

Assembly

Before beginning assembly, carefully read the following information and instructions:

- Place all parts in a cleared area and remove the packing materials from the spa shell. Do not dispose of the packing materials until assembly is completed and the spa is operating.
- During assembly, make sure that all parts are oriented as shown in the drawings.
- Read each assembly step before you begin.
- Tighten all parts as you assemble them, unless instructed to do otherwise.

1. Before beginning assembly, make sure that you have read and understand the information in the box above and on the previous two pages.

Refer to the drawing on page 6 and locate the slotted Access Panel (2). Remove the four #6 x 1 1/4" Wood Screws (7) from the Access Panel. Remove the Access Panel by sliding it down and then pulling the bottom of it away from the spa. **Be careful not to damage the spa shell.**

Remove the end of the power cord and the GFCI from inside the spa.

2. Locate the drain hose inside the spa. Close the valve knob on top of the drain hose. Next, make sure that the cap is fully tightened onto the end of the drain hose.

Refer to the inset drawing. Locate the two gate valves inside the spa—there is one gate valve on each side of the access opening. Make sure that the gate valves are open.

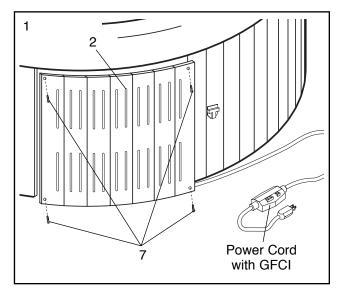
Refer to step 1 above. Re-attach the Access Panel (2) to the spa with the four $#6 \times 1 1/4$ " Wood Screws (7).

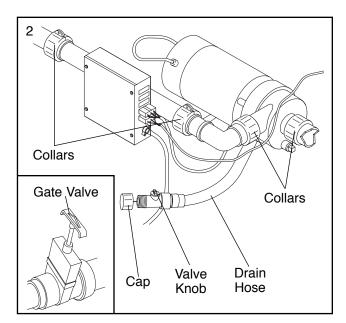
Make sure that the two collars on the heater and the two collars on the pump are tightened.

ASSEMBLY REQUIRES THE FOLLOWING TOOLS (not included):

- One (1) phillips screwdriver
- You may also need a small amount of soap or water.

A wire connector is provided on the pump motor of the spa to connect a minimum No. 8 AWG (804 mm²) solid copper conductor between the spa and any metal equipment, electrical enclosure made of metal, metal water pipes, or conduit within five feet of the spa.





Refer to the inset drawing. Set a Filter Gasket (33) on top of the Filter (16). Next, press the Filter Cover (8) into the spa until it is fully seated. Then, tighten the Locking Ring (19) onto the spa.

Remove the two warning decals (not shown) from the spa shell. Using a damp cloth, wipe the spa shell clean. Before filling the spa, make sure that it is in the desired position and that there is room to easily service the spa. Once the spa is filled, it will have to be drained before it can be moved.

Turn the Air Vent (29) counterclockwise to open it. Using a garden hose or other clean water source, begin filling spa. Do not use soft water. The spa may be filled with cold water; however, if warm or hot water is used, the spa will be ready for use sooner. Fill the spa until the water is at the level shown at the right. Do not overfill the spa.

Turn the Air Vent (29) clockwise to close it.

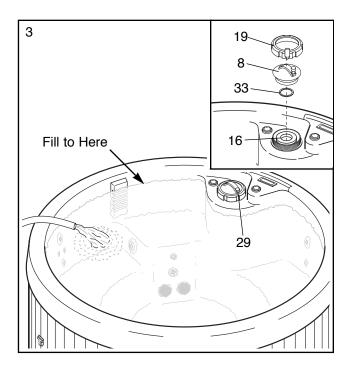
4. Attach the nozzle of the included air pump to the valves on the Inflatable Cover (4). Fill the Inflatable Cover with air. **Do not overfill the Inflatable Cover**.

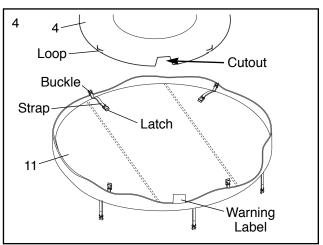
Slide one of the straps on the inside of the Spa Cover (11) through one of the loops on the Inflatable Cover (4). Attach the latch on the strap to the buckle on the other end of the strap. **Make sure that the cutout in the Inflatable Cover is lined up with the warning label on the Spa Cover.** Attach the other three straps on the inside of the Spa Cover through the loops on the Inflatable Cover in the same way. Place the Spa Cover over the spa and line up the cutout in the Inflatable Cover with the Console (not shown).

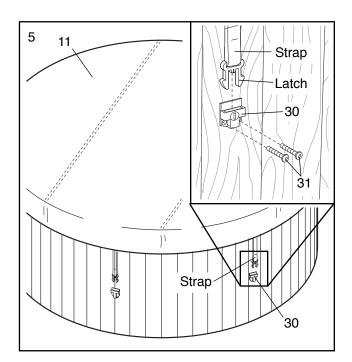
5. Pull down one of the straps on the Spa Cover (11) and hold the Buckle (30) against one of the wood panels on the spa. (Note: To position the Buckle correctly, have a second person hold the strap on the opposite side of the Spa Cover tight.) The Spa Cover must be tight. Do not place the Buckle over the grooves between the wood panels. Refer to the inset drawing. Remove the latch from the Buckle (30). Attach the Buckle to the wood panel with two #4 x 3/4" Screws (31). Note: It may be helpful to use a drill with a 1/16" bit to make starter holes in the wood panel. It may also be helpful to apply a little soap or wax to the screw threads.

Attach the other five Buckles (30) to the wood panels in the same way.

Remove the Spa Cover (11) and the Inflatable Cover (not shown) from the spa.







Using the Hydrotherapy Spa

The hydrotherapy spa is designed to seat five adults. The spa holds 225 gallons of water and offers a heating system (70°F to 104°F), a filtration system, ten adjustable hydrotherapy jets, and a powerful whirlpool jet. Follow the guidelines below to use and maintain the spa for your long-term enjoyment.

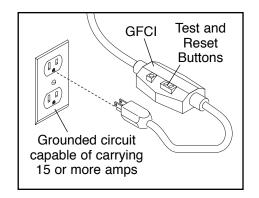
PLUGGING IN THE HYDROTHERAPY SPA

Important: The hydrotherapy spa is equipped with a 120/240V convertible electronics package. Operation at 240V will allow the heater to run more efficiently and less often. Conversion of the spa to 240V operation must be performed only by a qualified, licensed electrician and must comply with all local, state, and federal electrical codes. Please refer to the instructions on the inside of the electronics package for information about converting the spa to 240V operation.

Once the hydrotherapy spa is filled with water, the power cord can be plugged in and the spa can be turned on. Note: The first time the power cord is plugged in, the spa will turn on automatically.

When connecting the power cord, plug the power cord directly into a grounded circuit capable of carrying 15 or more amps. No other appliance should be on the same circuit. Replace the power cord immediately if it becomes damaged.

The power cord is equipped with a Ground Fault Circuit Interrupter (GFCI). You should always test the GFCI before using the hydro-



therapy spa. First, turn on the spa by pressing the jet button on the console (see USING THE CONTROLS on page 12). Once the spa is running, press the GFCI "test" button. The spa should shut off. Press the "reset" button. The spa should resume normal operation. If the spa continues to run after the "test" button is pressed, the GFCI is damaged. Do not use the spa until the GFCI has been repaired or replaced by a qualified electrician.

TESTING AND TREATING THE WATER

The hydrotherapy spa comes with a starter chemical pack for maintaining the water in the spa. Disregard the directions on the individual packages of "QUICK pHix It DOWN" and "QUICK pHix It UP." However, the directions on the bottle of "Non-chlorine Shox" and "Bromine Base" are correct. Always keep the chemicals away from children and pets.

The first time you use the spa, you should test and treat the water. **You must also treat the water each time you refill the spa.** Once you have verified that the spa is functioning properly, and have allowed the water to circulate for a while, you should remove the spa cover and add 1/3 of the "Bromine Base" bottle, and 1/3 of the "Non-chlorine Shox" bottle to the water in the spa. Allow the water to circulate for five minutes. You should now test the pH level of the water by using the included test strips. Refer to the test strip packaging for instructions on using the test strips. The pH reading should be between 7.2 and 7.8.

If the level is too low, add half of one of the "QUICK pHix It UP" packets to the water. Let the water circulate through the spa for five minutes. Test the pH level again. Repeat until the pH level is correct.

If the level is too high, add half of one of the "QUICK pHix It DOWN" packets to the water. Let the water circulate through the spa for five minutes. Test the pH level again. Repeat until the pH level is correct.

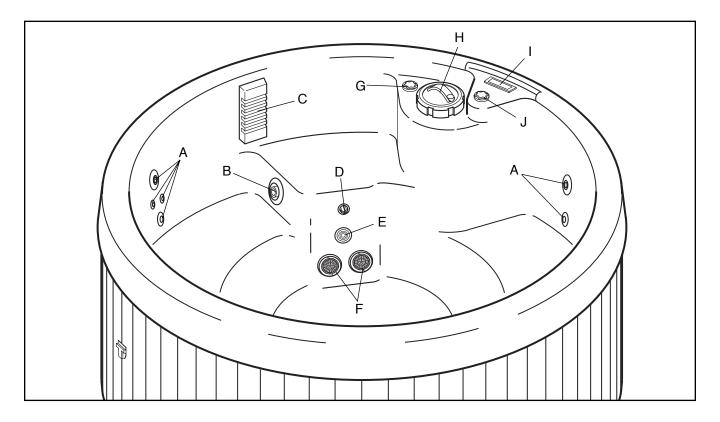
See WATER CHEMISTRY on page 14 for information concerning proper water maintenance.

STARTING THE HYDROTHERAPY SPA

Once you have tested the GFCI, you should verify the water flow from the pumping unit. Set the air control on the console to the lowest setting (see USING THE CONTROLS on page 12). The pumping unit will heat the water as it pumps. Cover the hydrotherapy spa with the spa cover. **The spa cover must be tight** (see SECURING THE SPA COVER ON THE SPA on page 11). The water will heat at about 1.8°F per hour with the cover on. If you are using the spa indoors, and the room temperature is maintained at 70°F, it will take approximately 24 to 36 hours for the water to reach the set temperature.

The temperature and the water flow can be set or changed with the controls on the console (see USING THE CONTROLS on page 12).

Spa Shell Diagram



Refer to the diagram above. The function of each component is explained below.

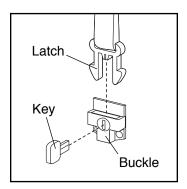
- A. The ten **hydrotherapy jets** provide a relaxing massage action. Three of the jets are adjustable. Note: The adjustable jets can be closed and opened by pushing and pulling the nozzles. If no air flows through the jets when the air control is turned counterclockwise, simply pull the nozzles slightly.
- B. The **whirlpool jet** directs a flow of water that creates a whirlpool action in the spa.
- C. The skimmer cleans the surface of the water.
- D. The **temperature probe** reads the temperature of the water.
- E. The **underwater light** can be used for night operation (see USING THE CONTROLS on page 12).
- F. The **suction vents** near the floor of the spa bring water into the pump in order to operate the system. The covers should always be in place over the suction vents. **Never operate the spa without the suction covers in place.**
- G. The **air control** determines the amount of air flowing through the spa jets during operation (see USING THE CONTROLS on page 12).

- H. The **filter** can be removed for cleaning or replacement (see CHECKING AND CLEANING THE FIL-TER on page 13).
- I. The **console** controls the spa jets, turns the underwater light on and off, and adjusts the water temperature setting (see USING THE CONTROLS on page 12).
- J. The **diverter** controls the flow of water through the hydrotherapy jets and the whirlpool jet (see USING THE CONTROLS on page 12).

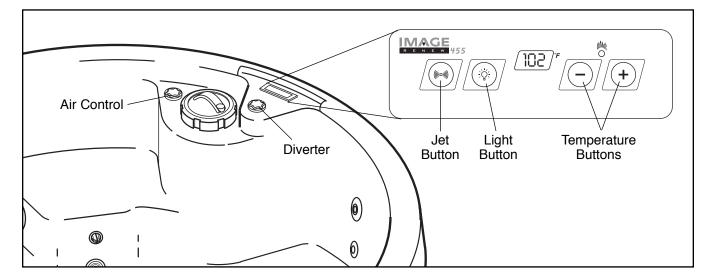
SECURING THE SPA COVER ON THE SPA

To secure the spa cover, snap the latches on the spa cover into the buckles on the wood panels.

The buckles can be locked by inserting the key and turning it clockwise 1/4 turn. To unlock the buckles, insert the key and turn



it counterclockwise 1/4 turn. Always keep the buckles locked when the spa is not in use. Keep the keys in a safe place, out of the reach of children.



Refer to the diagram above. The function of each control is explained below:

Air Control: Determines the amount of air flowing through the hydrotherapy jets during operation. If the control is turned counterclockwise, the amount of air flowing through the jets will increase. If the control is turned clockwise, the amount of air will decrease.

Diverter: Controls the flow of water through the hydrotherapy jets and the whirlpool jet. When the diverter is turned fully clockwise, the flow will be through the whirlpool jet; when the diverter is turned fully counterclockwise, the flow will be through the hydrotherapy jets; when the diverter is halfway between the clockwise and counterclockwise positions, the flow will be evenly distributed through the whirlpool jet and the hydrotherapy jets.

Jet Button: Turns the spa jets on and off. If the button is pressed once, the spa jets will run at low speed, providing gentle hydrotherapy. If the button is pressed again, the jets will run at high speed, providing more intense hydrotherapy. If the button is pressed a third time, the jets will shut off.

The spa also features an automatic mode that heats and filters the water when the spa is left unattended. When the spa is first plugged in, or if the buttons on the console have not been pressed for longer than twenty minutes, the automatic mode will begin filtering or heating the water as needed. **Note: To keep the filter and heat cycles from running, the power cord must be unplugged.** Light Button: Turns the underwater light on and off.

Temperature Buttons: Control the temperature setting of the water. The temperature can be set at 70°F to 104°F. The water heats at about 1.8°F per hour with the cover on. Use a medical or other accurate thermometer to check the temperature of the water. Note: The word "COOL" will appear in the console display if the temperature of the water is more than 20°F cooler than the set temperature. When this happens, the heater will automatically activate to warm the water. The word "ICE" will appear in the display if the temperature drops below 40°F. If this happens, the pump will automatically circulate the water and warm the plumbing to keep the water from freezing.

The temperature buttons can also be used to change the filter cycle time. First, press either of the temperature buttons. While the console display is flashing, press the jet button. The letters "FC" should appear in the display. Next, press the temperature buttons to select a 2-, 4-, or 6-hour filter cycle time. Then, press the jet button again. If the filter cycle time is not changed, it will default to 2 hours.

Maintenance

The hydrotherapy spa is designed to provide years of enjoyment. Please follow the guidelines below to properly maintain your spa.

MAINTENANCE SCHEDULE

Daily

- Check the water level and refill the spa to the level shown in step 3 on page 9.
- Check the pH balance and sanitizer level. Adjust if necessary (see WATER CHEMISTRY on page 14).
- · Clean the surface of the water with a skimming net.

Weekly

- · Clean the spa shell at the waterline.
- Check and thoroughly clean the filter (see CHECK-ING AND CLEANING THE FILTER on this page).
- Replace the filter if needed (see ORDERING REPLACEMENT PARTS on the back cover).

Monthly

- Clean the spa cover (see MAINTAINING THE SPA COVER on this page).
- Soak the filter for two hours in a trisodium phosphate (TSP) solution. Rinse the filter in clean water.
- Replace the filter if needed (see ORDERING REPLACEMENT PARTS on the back cover).

Every Three Months

- Drain the spa and refill it with clean water. Sanitize and test the pH of the water.
- Check for any leaks around the pump or joints in the pipes. The seals will wear out over time; detecting leaks early can reduce repair costs.
- Clean the interior of the spa. Do not use solvents or waxes.

Every Six Months

• Treat the exterior with a wood sealant (see MAIN-TAINING THE SPA EXTERIOR below).

MAINTAINING THE SPA EXTERIOR

The WeatherWood[™] surround has been treated at the factory. For information and supplies to maintain the beauty and color of your WeatherWood[™] surround, call our Customer Service Department toll-free at 1-877-897-7493.

CLEANING THE SPA SHELL

The spa shell should be cleaned with a mild soap solution; do not use solvents. The spa should always be clean and dry before being moved or stored.

MAINTAINING THE SPA COVER

The spa cover should be cleaned monthly. To clean the spa cover, use water and a non-abrasive cleaner on the entire cover. Rinse the cover with a garden hose to remove any cleaner residue. Dry the cover entirely. Use a non-silicone-based vinyl conditioner on the cover after you clean it. This will help protect the cover from sun damage.

SANITIZING THE HYDROTHERAPY SPA

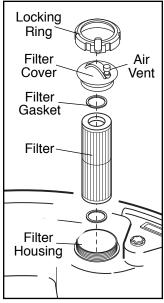
Please refer to your local pool and spa supplier for information concerning which chemicals you should use in your area to sanitize the spa.

The most common sanitizing agent is a solid bromine concentrate. The amount required varies according to several factors, such as user load, temperature, water conditions etc. Proper water maintenance is a fairly complex process. We recommend that you contact your local pool and spa supplier for information on how you should best accomplish this.

CHECKING AND CLEANING THE FILTER

The filter should be checked periodically for build-up of dirt and oil. If the filter needs to be cleaned, follow the steps below:

- 1. Turn off the power.
- 2. Turn the air vent counterclockwise to open it.
- 3. Unscrew the locking ring and pull out the filter cover.
- 4. Lift the top filter gasket and the filter out of the filter housing.
- 5. Check the filter for dirt and debris. If the filter needs to be cleaned, rinse the filter with a hose. If the filter is still dirty, soak it in cleaning solution from a pool and spa supply store.



- Inspect the filter for damage. Replace the filter if it is damaged.
- 7. Insert the cleaned or new filter and the top filter gasket into the filter housing.
- 8. Re-attach the filter cover and the locking ring.
- 9. Turn the air vent clockwise to close it.

WATER CHEMISTRY

The hydrotherapy spa comes with a starter chemical pack for maintaining the water in the spa. (See TEST-ING AND TREATING THE WATER on page 10.) Additional chemicals can be purchased at a pool and spa supply store.

CAUTION: The chemicals used to maintain the pH balance of the water and to sanitize the water can be dangerous. Always follow these basic guide-lines when handling the chemicals:

- 1. Always read and follow the directions on the label, unless directed otherwise.
- 2. Never mix different chemicals.
- 3. Do not exceed the recommended amounts of chemicals—follow the directions on the label closely.
- 4. Keep all chemicals out of the reach of children and pets.
- 5. Keep all containers closed tightly when not in use.
- 6. Never add water to the chemicals—always add the chemicals to the water as directed.
- 7. Always store chemicals in a cool, dry place.

MAINTAINING THE PROPER PH BALANCE

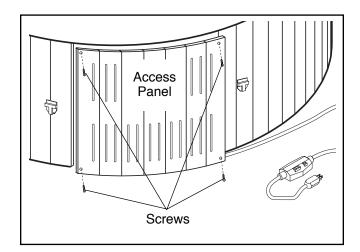
The pH factor is a measure of the relative acidity or alkalinity in the water. It is measured on a scale of 1 to 14. Pure water has a value of 7, which is neutral. Any value above 7 is alkaline, and any value below 7 is acidic. You should maintain a slightly alkaline pH level, between 7.2 and 7.8, in the hydrotherapy spa.

Severe problems can occur when the pH balance is not maintained within this range. If the pH level exceeds 7.8, dissolved minerals can build up and clog the plumbing in the spa jet unit. If the pH level falls below 7.2, the acid level in the water will begin to corrode the metal parts in the spa jet unit. Also, the sanitation agents in the water will not be effective if the pH level is not properly maintained. Damage caused by improper pH levels is not covered under the warranty.

To maintain the proper pH level, you should test the pH of the water regularly. To test the water, you can either purchase additional test strips or purchase a pH test kit at a pool and spa supply store. The pH reading should be between 7.2 and 7.8. If the level is too low, add a pH increaser (usually soda ash). If the level is too high, add a pH reducer (usually sodium bisulfate). Test the water again after five minutes. See the instructions with your pH test kit for additional information about testing and adjusting the pH.

ATTACHING AND REMOVING THE ACCESS PANEL

To locate the access panel, refer to the drawing on page 6. To remove the access panel, first remove the four indicated screws. Slide the access panel down and then pull the bottom of it away from the spa. **Be** careful not to damage the spa shell as you remove the access panel.



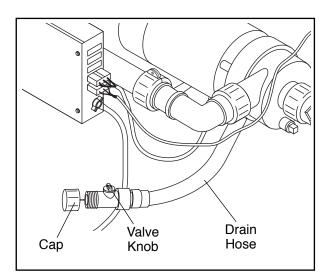
To replace the access panel, insert the top of the access panel under the edge of the spa shell. Slide the cover up until the bottom of the access panel clears the trim along the bottom of the spa. Then, slide the access panel into place and re-attach the four screws.

DRAINING THE HYDROTHERAPY SPA

The hydrotherapy spa should be drained at least four times a year and refilled with clean water. You may need to drain the spa more often, depending on the user load. This must be done because after repeated chemical treatment the water becomes chemically saturated. Once this happens, additional chemical treatment of the water is no longer effective. The spa should also be drained if you will not be using it for long periods of time. The spa must always be drained before major repairs are made.

The hydrotherapy spa should always be covered when it is empty. Direct sunlight can cause extensive damage. The surface of the spa shell can reach temperatures as high as 150°F in a matter of minutes if exposed to the sun while it is empty. These high temperatures can cause significant damage, such as blistering of the shell surface and warping of the spa shell. Any damage caused by sun exposure is not covered under warranty. To drain the hydrotherapy spa, follow the steps below:

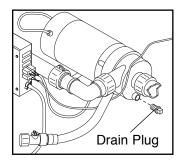
- 1. Using the console, adjust the temperature to the lowest setting.
- 2. Shut off the circuit breaker or GFCI.
- 3. Remove the access panel from the spa.
- 4. Remove the end of the drain hose from the spa. Remove the cap and attach a garden hose to the drain hose.



- 5. Open the valve by turning the valve knob. The water will begin to drain.
- 6. When the spa is empty, close the valve and remove the garden hose. Re-attach the cap and return the drain hose to the clip inside the spa.
- 7. Re-attach the access panel.
- 8. Refill the spa and treat the water with chemicals (see pages 10 and 14).

DRAINING THE PUMP

After the hydrotherapy spa is drained (see DRAINING THE HYDROTHERAPY SPA on page 14), the pump should also be drained if the hydrotherapy spa will be stored for more than thirty days or if it may be exposed to freezing temperatures.



To drain the pump, remove the access panel from the spa unit (see ATTACHING AND REMOVING THE ACCESS PANEL on page 14). Locate the pump inside the spa unit. Remove the drain plug from the pump and allow all water to drain from the pump. Replace the drain plug.

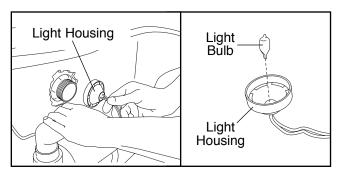
WINTER USE AND CARE

The hydrotherapy spa is designed for year-round use. If you decide to store the spa for the winter, store it in a warm, dry location. Follow the steps below to winterize the spa.

- 1. Drain the spa (see DRAINING THE HYDROTHER-APY SPA on the previous page and this page).
- 2. Remove all remaining water from the spa shell. Dry the spa shell with towels.
- Set the air control to the lowest setting. Use a wet/dry vacuum to pull any remaining water from the system. To do this, place the vacuum nozzle over each jet, starting with the highest jet and finishing with the lowest jet.
- 4. Set the air control on the console to the highest setting and repeat step 3.
- 5. Drain the pump (see DRAINING THE PUMP on this page). Once the water is drained from the pump, place the vacuum nozzle over the drainage hole in the pump and vacuum any additional water from the pump. Note: For additional protection, remove the pump/motor from the spa and store it in a climate-controlled room.
- 6. Clean the spa shell (see page 13).
- 7. Clean the filter (see page 13).
- 8. A qualified electrician should disconnect the power cord from the 240V power source.
- 9. Re-attach the access panel and the spa cover.

REPLACING THE LIGHT BULB

If the underwater light burns out, you will need to remove the access panel to replace it (see ATTACHING AND REMOVING THE ACCESS PANEL on page 14). Next, locate the light housing. Turn the light housing counterclockwise and remove it from the spa shell.



To replace the light bulb, pull the old light bulb out of the housing and insert a new light bulb. Re-attach the light housing to the spa shell. Re-attach the access panel to the spa.

Trouble-shooting

Most problems can be solved by following the simple steps below. Find the symptom that applies, and follow the steps listed. If further assistance is needed, call our Customer Service Department toll-free at 1-877-897-7493, Monday through Friday, 6 a.m. until 6 p.m. Mountain Time.

1. SYMPTOM: THE SPA WILL NOT OPERATE

a. Check to see if the GFCI breaker is tripped or was not turned on. Reset the GFCI breaker.

2. SYMPTOM: THE CIRCUIT BREAKER OR THE GFCI TRIPS WHILE THE SPA IS OPERATING

a. Reset the circuit breaker or the GFCI. If the circuit breaker or the GFCI trips again, contact a qualified electrician for service.

3. SYMPTOM: THE PUMP HUMS

- a. The filter may be dirty or damaged. Remove the filter from the filter housing and clean or replace the filter (see page 13).
- b. The pump may have a foreign object stuck in the impeller. Contact our customer service department.
- c. The pump may have a loose wire connection. Contact our customer service department.

4. SYMPTOM: THE PUMP HUMS, BUT DOES NOT ROTATE

a. The pump may be jammed. Contact our customer service department. If your spa is no longer under warranty, contact a local spa and pool service provider.

5. SYMPTOM: THE PUMP IS NOISY WHILE OPERATING

- a. There may be debris in the pump. Contact our customer service department.
- b. The pump may have a bad bearing. Contact our customer service department.

6. SYMPTOM: THE WATER DOES NOT HEAT

a. Make sure that the hydrotherapy spa is fully covered with the spa cover. **The spa cover must be tight for the water to heat.** Set the air control to low. The water will heat at a rate of 1.8°F per hour. If you are using the spa indoors and the room temperature is maintained at 70°F, it will take approximately 24 to 36 hours for the water to reach the set temperature.

b. If you are using the hydrotherapy spa outdoors, it may take longer for the water to heat. See the chart below for the approximate heating time.

Air Temperature Heating Time

70°F +	16 to 24 hours
50°F–70°F	1 to 2 days
30°F–50°F	2 to 4 days

If the water still has not heated after four days, contact our customer service department.

7. SYMPTOM: THE WATER IS NOT BEING CLEANED BY THE FILTER

- a. Check to see if the filter is in place. Clean the filter if it is dirty.
- b. Check the chemical balance of the water. If the pH is incorrect, the sanitizing agents will not function properly.

8. SYMPTOM: THE WATER PULSATES OR THERE IS MINIMUM WATER FLOW

a. This usually occurs only when the water level is low. Add water until the jets are covered (see step 3 on page 9).

9. SYMPTOM: THE WATER LEVEL DROPS

- a. Some water loss due to evaporation is normal. If rapid water loss occurs, or if you notice wetness on the floor around the hydrotherapy spa, the spa shell may have a leak. Contact your local pool and spa service provider for repairs.
- b. A clamp or seal inside the pump compartment may be loose. Check inside the pump compartment for excess water and watch the pump unit while it is operating to see if water drips from any of the plumbing. If you can identify the location of the leak inside the spa jet unit, tighten the clamp or replace the damaged seal.

10. SYMPTOM: THE SPA JET UNIT CONTINUES TO RUN AFTER IT HAS BEEN SHUT OFF

a. To turn the spa jets on low, press the jet button once. To turn the spa jets on high, press the jet button twice. To turn the spa jets off, press the button three times. The spa jets will remain off for two hours, at which time they will begin running the filter cycle. At any time after the spa jets have been shut off, the pump will begin cycling the water if the temperature falls below the minimum setting. Note: If the water temperature is already below the minimum setting, the pump will not shut off.

11. SYMPTOM: NO AIR FLOWS THROUGH THE ADJUSTABLE HYDROTHERAPY JETS WHEN THE AIR CONTROL IS TURNED COUNTER-CLOCKWISE

a. The three adjustable hydrotherapy jets can be closed and opened by pushing and pulling the nozzles. If no air flows through the hydrotherapy jets when the air control is turned counterclockwise, simply pull the nozzles slightly.

12. SYMPTOM: THE CONSOLE DISPLAYS THE WORDS "COOL" OR "ICE"

- a. This is a normal function of the spa; no action is necessary. The word "COOL" will appear in the display if the temperature of the water is more than 20°F cooler than the set temperature. If this happens, the heater will automatically activate to warm the water. The word "ICE" will appear if the temperature drops below 40°F. If this happens, the pump will automatically circulate the water and warm the plumbing.
- 13. SYMPTOM: THE CONSOLE DISPLAYS ONE OF THE FOLLOWING MESSAGES: "OH," "5n1," "5n3," "FLO," "Pd," "O3," "PH50," "PH90," or "ILOC"
 - **a.** If the console displays one of the messages listed above, or if the console does not function properly, contact our customer service department.

Part List-Model No. IMHS45590

Key No.	Qty.	Description	Key No.	Qty.	Description
1	1	Compression Fitting Assembly	26	3	Push/Pull Movable Jet
2	1	Access Panel	27	1	Drain Plug
3	1	Whirlpool Jet	28	1	Drain Plug O-ring
4	1	Inflatable Cover	29	1	Air Vent
5	4	#8 x 5/8" Screw	30	6	Buckle
6	2	Removable Collar	31	12	#4 x 3/4" Screw
7	4	#6 x 1 1/4" Wood Screw	32	1	Air Vent O-ring
8	1	Filter Cover w/O-ring	33	2	Filter Gasket
9	1	Spa Shell	34	1	Air Control Knob
10	3	1/4" Whirly Jet	35	4	1/4" x 1 1/4" Bolt
11	1	Spa Cover	#	1	Ground Wire
12	2	Heater Gasket	#	2	Ground Wire Bracket
13	2	Rubber Pump O-ring	#	1	Water Treatment Kit
14	1	Heater Assembly	#	1	Water Test Strip
15	1	Skimmer Grill w/Screws	#	2	Key
16	1	Filter	#	1	User's Manual
17	2	#10 x 1 1/4" Screw	#	1	Large Warning Sign
18	2	Suction Cover	#	1	Warning Sign
19	1	Locking Ring	#	1	Foot Pump
20	1	Pump Motor	#	1	Light Cover, Red
21	1	Pump Motor Power Cord	#	1	Light Cover, Blue
22	1	Rubber Grommet	#	1	Light Bulb
23	1	Light Cover	#	8	Side Panel
24	4	5/16" Lock Washer			
25	1	Diverter Knob			

Note: "#" indicates a non-illustrated part. Specifications are subject to change without notice.

Exploded Drawing-Model No. IMHS45590

R0300A

Ordering Replacement Parts

To order replacement parts, simply call our Customer Service Department toll-free at 1-877-897-7493, Monday through Friday, 6 a.m. until 6 p.m. Mountain Time (excluding holidays). To help us assist you, please be prepared to give the following information when calling:

- 1. The MODEL NUMBER of the product (IMHS45590)
- 2. The NAME of the product (IMAGE[®] RENEW 455)
- 3. The SERIAL NUMBER of the product (see the front cover of this manual)
- 4. The KEY NUMBER and DESCRIPTION of the desired part(s) (see the PART LIST and EXPLODED DRAWING on pages 18 and 19).

Limited Warranty

ICON Health & Fitness, Inc. (ICON), warrants this product to be free from defects in workmanship and material. ICON warrants the spa shell for five (5) years. The pump and motor are covered for two (2) years. All other parts are covered for ninety (90) days. This warranty extends only to the original purchaser. ICON's obligation under this warranty is limited to replacing or repairing, at ICON's option, the product at one of its authorized service centers. All products for which warranty claim is made must be received by ICON at one of its authorized service centers with all freight and other transportation charges prepaid, accompanied by sufficient proof of purchase. All returns must be pre-authorized by ICON. This warranty does not extend to any product or damage to a product caused by or attributable to freight damage, abuse, misuse, improper or abnormal usage, or repairs not provided by ICON authorized service personnel, to products used for commercial or rental purposes, or to products used as store display models. Specifically excluded are damages caused by or attributable to the following incidents: any damage to the wood exterior resulting from improper maintenance, or any damage to the wood or tile exterior attributable to freight mishandling; damage resulting from improper winterization; damage to the spa shell resulting from improper chemical treatment, damage to the spa shell resulting from exposure to extreme temperatures, or damage to the spa shell resulting from exposure to direct sunlight and ultraviolet rays while the spa is empty; damage to the pump, motor, plumbing, and components due to improper maintenance, chemical treatment, or exposure; damage resulting from failure to properly follow user's manual installation, operation, or maintenance instructions. Also excluded are consumable components, including but not restricted to filter cartridges and light bulbs. No other warranty beyond that specifically set forth above is authorized by ICON.

ICON is not responsible or liable for indirect, special, or consequential damages arising out of or in connection with the use or performance of the product or damages with respect to any economic loss, loss of or damage to property including water damage, loss of revenues or profits, loss of enjoyment or use, costs of removal, installation or other consequential damages of whatsoever nature. Some states do not allow the exclusion or limitation of incidental or consequential damages. Accordingly, the above limitation may not apply to you.

The warranty extended hereunder is in lieu of any and all other warranties and any implied warranties of merchantability or fitness for a particular purpose is limited in its scope and duration to the terms set forth herein. Some states do not allow limitations on how long an implied warranty lasts. Accordingly, the above limitation may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

ICON HEALTH & FITNESS, INC., 1500 S. 1000 W., LOGAN, UT 84321-9813